

(FILE 'HOME' ENTERED AT 16:07:12 ON 13 AUG 2003)

FILE 'REGISTRY' ENTERED AT 16:07:39 ON 13 AUG 2003

L1 SCREEN 970 AND 1015 AND 2067
L2 STRUCTURE UPLOADED
L3 QUE L2 AND L1
L4 53 S L3 FULL
L5 SCREEN 2067
L6 STRUCTURE UPLOADED
L7 QUE L6 AND L5
L8 338 S L7 FULL
L9 SCREEN 2067
L10 STRUCTURE UPLOADED
L11 QUE L10 AND L9
L12 1 S L11 FULL
L13 1 S L4 AND L8 AND L12

FILE 'CAPLUS' ENTERED AT 16:09:44 ON 13 AUG 2003

L14 1 S L13

FILE 'REGISTRY' ENTERED AT 16:11:02 ON 13 AUG 2003

L15 1 S L4 AND L8

FILE 'CAPLUS' ENTERED AT 16:12:02 ON 13 AUG 2003

L16 181 S L4
L17 32139 S PHOTORESIST OR RESIST COMPOSITION
L18 2 S L16 AND L17
L19 909886 S POLYMER
L20 81 S L16 AND L19

FILE 'USPATFULL' ENTERED AT 16:18:57 ON 13 AUG 2003

L21 74 S L20
L22 63469 S PHOTORESIST OR RESIST COMPOSITION
L23 2 S L21 AND L22

FILE 'REGISTRY' ENTERED AT 16:22:11 ON 13 AUG 2003

L24 SCREEN 970 AND 1015 AND 2067
L25 STRUCTURE UPLOADED
L26 QUE L25 AND L24
L27 SCREEN 970 AND 1015 AND 2067
L28 STRUCTURE UPLOADED
L29 QUE L28 AND L27
L30 SCREEN 970 AND 1015 AND 2067
L31 STRUCTURE UPLOADED
L32 QUE L31 AND L30
L33 10 S L26 FULL
L34 8 S L29 FULL
L35 8 S L32 FULL
L36 SCREEN 970 AND 1015 AND 2067
L37 STRUCTURE UPLOADED
L38 QUE L37 AND L36
L39 SCREEN 970 AND 1015 AND 2067
L40 STRUCTURE UPLOADED
L41 QUE L40 AND L39
L42 SCREEN 970 AND 1015 AND 2067
L43 STRUCTURE UPLOADED
L44 QUE L43 AND L42
L45 53 S L38 FULL
L46 6 S L41 FULL
L47 25 S L44 FULL
L48 0 S L34 NOT L35

FILE 'USPATFULL' ENTERED AT 16:26:36 ON 13 AUG 2003

L49 4 S L33
L50 5 S L34
L51 81 S L45
L52 3 S L46
L53 11 S L47
L54 2 S L22 AND (L49 OR L50 OR L51 OR L52 OR L53)

FILE 'CAPLUS' ENTERED AT 16:28:16 ON 13 AUG 2003

L55 14 S L33
L56 22 S L34
L57 192 S L45 OR L46 OR L47
L58 210 S L57 OR L55 OR L56
L59 2 S L17 AND L58

FILE 'USPATFULL' ENTERED AT 16:30:28 ON 13 AUG 2003

L60 74523 S PHOTSENSITIVE
L61 3 S L60 AND L51

=> d 153 1-11 bib ab hitstr

L53 ANSWER 1 OF 11 USPATFULL on STN
AN 2002:262131 USPATFULL
TI Agricultural covering material
IN Ichikuni, Naomi, Kanagawa, JAPAN
Ishida, Toru, Kanagawa, JAPAN
Kaya, Seitoku, Kanagawa, JAPAN
Funaki, Atsushi, Kanagawa, JAPAN
Takakura, Teruo, Kanagawa, JAPAN
PA Asahi Glass Company Limited, Tokyo, JAPAN (non-U.S. corporation)
PI US 6461719 B1 20021008
WO 9967333 19991229
AI US 2000-720240 20001222 (9)
WO 1999-JP3342 19990623
20001222 PCT 371 date
PRAI JP 1998-176320 19980623
JP 1998-176321 19980623
JP 1998-180886 19980626
JP 1998-180887 19980626
JP 1998-182781 19980629
JP 1998-182782 19980629
DT Utility
FS GRANTED
EXNAM Primary Examiner: Acquah, Samuel A.
LREP Oblon, Spivak, McClelland, Maier & Neustadt, P.C.
CLMN Number of Claims: 23
ECL Exemplary Claim: 1
DRWN 0 Drawing Figure(s); 0 Drawing Page(s)
LN.CNT 1644
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB An agricultural covering material made of a fluorine-containing polymer film having a dynamic viscoelastic modulus of from 1 to 70 kg/mm.sup.2, a tensile strength of from 1.5 to 5.0 kg/mm.sup.2, a specific gravity of from 1.0 to 2.0 and a contact angle with water of at most 106.degree..
IT 69288-57-9P, Ethylene-(perfluorohexyl)ethylene-tetrafluoroethylene copolymer
(for prepg. agricultural covering materials with excellent flexibility, durability, dust protection, and light transmittance)
RN 69288-57-9 USPATFULL
CN 1-Octene, 3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluoro-, polymer with ethene and tetrafluoroethene (9CI) (CA INDEX NAME)

L14 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2003 ACS on STN
 AN 2003:58673 CAPLUS
 DN 138:115067
 TI Chemical amplification photoresist monomers, polymers therefrom and photoresist compositions containing the same
 IN Jung, Jae Chang; Lee, Geun Su; Shin, Ki Soo
 PA S. Korea
 SO U.S. Pat. Appl. Publ., 8 pp.
 CODEN: USXXCO
 DT Patent
 LA English
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2003017404	A1	20030123	US 2002-54095	20020122
PRAI	KR 2001-38030	A	20010629		
OS	MARPAT 138:115067				

AB The present invention relates to a chem. amplification photoresist monomer, a photoresist polymer prepd. from it, and a photoresist compn. using the polymer. More specifically, a chem. amplification photoresist polymer comprises a fluorine-contg. monomer R1R3C=CR2R4 (R1-4 = H, halogen-substituted alkyl). The photoresist compn. has excellent etching resistance, heat resistance and adhesiveness, and is developable in aq. tetramethylammonium hydroxide (TMAH) soln. As the compn. has low light absorbance at 193 nm and 157 nm wavelength, it is very useful for forming ultramicro pattern in the process using a light source of far UV, esp. of VUV (157 nm).

IT **488722-50-5P**
 RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (chem. amplification photoresist monomers, polymers for photoresist compns.)

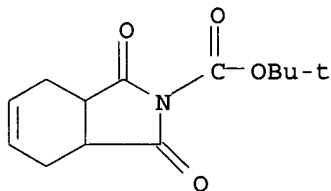
RN 488722-50-5 CAPLUS

CN 2H-Isoindole-2-carboxylic acid, 1,3,3a,4,7,7a-hexahydro-1,3-dioxo-, 1,1-dimethylethyl ester, polymer with 3,3,4,4,5,5,6,6,6-nonafluoro-1-hexene and 3a,4,7,7a-tetrahydro-1H-isoindole-1,3(2H)-dione (9CI) (CA INDEX NAME)

CM 1

CRN 488722-49-2

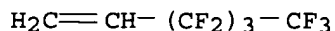
CMF C13 H17 N O4



CM 2

CRN 19430-93-4

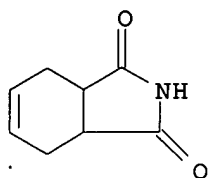
CMF C6 H3 F9



CM 3

CRN 85-40-5

CMF C8 H9 N O2



=>

L18 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2003 ACS on STN
 AN 2003:42889 CAPLUS
 DN 138:115057
 TI Maleimide-**photoresist** monomers containing halogen for
photoresist compositions
 IN Lee, Geun Su; Jung, Jae Chang; Jung, Min Ho; Koh, Cha Won; Shin, Ki Soo
 PA S. Korea
 SO U.S. Pat. Appl. Publ., 19 pp.
 CODEN: USXXCO
 DT Patent
 LA English
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2003013037	A1	20030116	US 2002-80335	20020221
	JP 2003020315	A2	20030124	JP 2002-109507	20020411
PRAI	KR 2001-19815	A	20010413		
	KR 2001-19816	A	20010413		

OS MARPAT 138:115057

AB **Photoresist** monomers, **photoresist** polymers prepd. of it, and **photoresist** compns. using the polymer are disclosed. More specifically, **photoresist** polymers comprising maleimide monomer represented by formula I (X1,2 = H, CF3, halogen; R1-3 = H, F, CF3, OH; C1-10 alkyl, perfluoroalkyl, alkoxy) and a compn. comprising the polymer of it are disclosed. The **photoresist** compn. has excellent etching resistance, heat resistance and adhesiveness, and can be developed in an aq. tetramethylammonium hydroxide (TMAH) soln. As the compn. has low light absorbance at 193 nm and 157 nm wavelength, and it is suitable for a process using UV light source such as VUV (157 nm).

IT **485804-88-4P**

RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (maleimide-**photoresist** monomers contg. halogen for **photoresist** compns.)

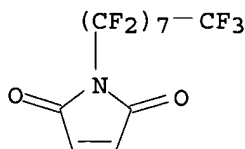
RN 485804-88-4 CAPLUS

CN Bicyclo[2.2.1]hept-5-ene-2-carboxylic acid, 1,1-dimethylethyl ester, polymer with 1-(heptadecafluorooctyl)-1H-pyrrole-2,5-dione and 3,3,4,4,5,5,6,6,6-nonafluoro-1-hexene (9CI) (CA INDEX NAME)

CM 1

CRN 172413-96-6

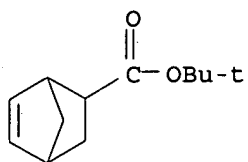
CMF C12 H2 F17 N O2



CM 2

CRN 154970-45-3

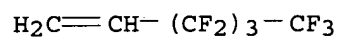
CMF C12 H18 O2



CM 3

CRN 19430-93-4

CMF C6 H3 F9



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L20 ANSWER 81 OF 81 CAPLUS COPYRIGHT 2003 ACS on STN
 AN 1979:188670 CAPLUS
 DN 90:188670
 TI Copolymers made from tetrafluoroethylene and ethylene
 IN Ukihashi, Hiroshi; Yamabe, Masaaki; Miyake, Haruhisa
 PA Asahi Glass Co., Ltd., Japan
 SO Ger. Offen., 22 pp.
 CODEN: GWXXBX
 DT Patent
 LA German
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 2836296	A1	19790301	DE 1978-2836296	19780818
	DE 2836296	C2	19830714		
	JP 54033583	A2	19790312	JP 1977-98752	19770819
	JP 59050163	B4	19841206		
PRAI	JP 1977-98752		19770819		

AB Terpolymers which have volumetric melt flow rate 10-500 mm³/s at 300.degree. and 30 kg/cm² and are useful in heat-resistant coatings and elec. insulation consist of C₂F₄ (I) 40-60, C₂H₄ (II) 40-60, and perfluoroalkylvinyl monomers CH₂:CHCnF_{2n+1} (n = 2-10) 0.01-10 mol.%. Thus, I 1226, II 82, and perfluorobutylethylene (III) 26 g were added to 3.46 kg CCl₃F, 6.52 kg C₂Cl₃F₃, and 2.38 g tert-Bu peroxyisobutyrate and polymd. at 65.degree. with addn. of a 53:46.3:0.7 mol. ratio mixt. of I, II, and III to maintain the pressure at 15.0 kg/cm². After 5 h, 460 g of a white copolymer [68258-85-5] with flow temp. 267.degree., decompn. temp. 360.degree., volumetric melt flow rate 50 mm³/s, tensile strength 55 kg/cm², and elongation 610% at 200.degree. was obtained. Coatings of the polymer showed no crack formation on stressing at high temp. and had initial deformation (tensile creep test at 175.degree. and 30 kg/cm²) 3.2%. The polymer had heat aging resistance >200 h at 230.degree., and showed no stress cracking in 60% HNO₃.

IT 68258-85-5

RL: TEM (Technical or engineered material use); USES (Uses)
 (coatings, with improved heat resistance and melt flow)

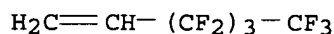
RN 68258-85-5 CAPLUS

CN 1-Hexene, 3,3,4,4,5,5,6,6,6-nonafluoro-, polymer with ethene and tetrafluoroethene (9CI) (CA INDEX NAME)

CM 1

CRN 19430-93-4

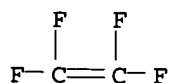
CMF C6 H3 F9



CM 2

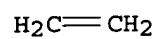
CRN 116-14-3

CMF C2 F4



CM 3

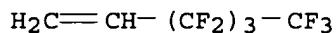
CRN 74-85-1
CMF C2 H4



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0 ANSWER 77 OF 81 CAPLUS COPYRIGHT 2003 ACS on STN
 AN 1985:96237 CAPLUS
 DN 102:96237
 TI **Polymer** of TFE and F-alkyl ethylene
 IN Fritschel, Scott J.
 PA du Pont de Nemours, E. I., and Co. , USA
 SO U.S., 6 pp. Cont.-in-part of U.S. Ser. No. 289,493, abandoned.
 CODEN: USXXAM
 DT Patent
 LA English
 FAN.CNT 2

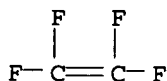
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 4487902	A	19841211	US 1983-507082	19830623
	BR 8106040	A	19820608	BR 1981-6040	19810922
	BE 890476	A1	19820324	BE 1981-206047	19810924
	FR 2490653	A1	19820326	FR 1981-17996	19810924
	FR 2490653	B1	19840323		
	GB 2084593	A	19820415	GB 1981-28918	19810924
	NL 8104397	A	19820416	NL 1981-4397	19810924
	JP 57085810	A2	19820528	JP 1981-149681	19810924
	JP 62034322	B4	19870727		
	CA 1220597	A1	19870414	CA 1981-386576	19810924
PRAI	US 1980-190562		19800925		
	US 1981-289493		19810806		
AB	Copolymer. of 93-99 mol % tetrafluoroethylene (TFE) with 1-7 mol % fluoroalkyl derivs. of ethylene gives polymers that provide readily processable melts with m.p. lower than that of PTFE melts. Thus, 800 mL CH ₂ ClCFCl ₂ (I) contg. 2 mL perfluorobutylethylene (II) and 0.25 mL MeOH was pressurized to 9.1 kg/cm ² with TFE at 60.degree. and mixed with 15 mL 0.002 g/mL bis(perfluoropropanoyl) peroxide (III) soln. in I. After 4 min stirring at 1000 rpm and 60.degree., more III-I soln. was added continuously at 1 mL/min, and after an addnl. 4 min a 0.04 g/mL II-I soln. was added continuously at 1 mL/min to give, after an addnl. 60 min, copolymer [82606-24-4] contg. 2.3 mol % II, with melt viscosity 27 .times. 10 ⁴ Pa at 372.degree. and m.p. 303.degree., which provided compression-molded films with ultimate tensile strength 4200 psi, yield strength 2900 psi, and ultimate elongation 290%.				
IT	82606-24-4P RL: PREP (Preparation) (manuf. of melt-processable)				
RN	82606-24-4 CAPLUS				
CN	1-Hexene, 3,3,4,4,5,5,6,6,6-nonafluoro-, polymer with tetrafluoroethene (9CI) (CA INDEX NAME)				
CM	1				
CRN	19430-93-4				
CMF	C6 H3 F9				

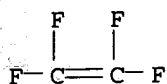


CM 2

CRN 116-14-3

CMF C2 F4





21. ANSWER 65 OF 74 USPATFULL on STN

AN 87:8116 USPATFULL
 TI Tetrafluoroethylene fine powder and preparation thereof
 IN Malhotra, Satish C., Parkersburg, WV, United States
 PA E. I. Du Pont de Nemours and Company, Wilmington, DE, United States
 (U.S. corporation)
 PI US 4640955 19870203
 AI US 1985-794046 19851029 (6)
 RLI Division of Ser. No. US 1984-621798, filed on 18 Jun 1984, now patented,
 Pat. No. US 4576869
 DT Utility
 FS Granted
 EXNAM Primary Examiner: Michl, Paul R.
 CLMN Number of Claims: 2
 ECL Exemplary Claim: 1
 DRWN No Drawings
 LN.CNT 524

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Tetrafluoroethylene fine powder resins are described which have
 surprisingly high extrusion pressures and molecular weights which make
 them useful in post-paste extruded stretching operations. The resins are
 made by using a permanganate polymerization initiator and controlling
 its rate of addition.

IT 82606-24-4P

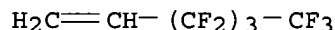
(prepn. of powd., for paste extrusion and stretching)

RN 82606-24-4 USPATFULL
 CN 1-Hexene, 3,3,4,4,5,5,6,6,6-nonafluoro-, polymer with tetrafluoroethene
 (9CI) (CA INDEX NAME)

CM 1

CRN 19430-93-4

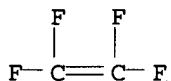
CMF C6 H3 F9



CM 2

CRN 116-14-3

CMF C2 F4



L21 ANSWER 66 OF 74 USPATFULL on STN

AN 87:3301 USPATFULL
 TI Tetrafluoroethylene copolymers
 IN Gangal, Subhash V., Parkersburg, WV, United States
 Malhotra, Satish C., Parkersburg, WV, United States
 PA E. I. Du Pont de Nemours and Company, Wilmington, DE, United States
 (U.S. corporation)
 PI US 4636549 19870113
 AI US 1985-739860 19850531 (6)
 RLI Continuation-in-part of Ser. No. US 1984-663466, filed on 18 Oct 1984,
 now abandoned which is a continuation-in-part of Ser. No. US
 1983-489305, filed on 28 Apr 1983, now abandoned which is a
 continuation-in-part of Ser. No. US 1982-449499, filed on 13 Dec 1982,

now abandoned
DT Utility
FS Granted
EXNAM Primary Examiner: Wong, Jr., Harry
CLMN Number of Claims: 1
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 580

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A tetrafluoroethylene copolymer composition in which the modifying comonomer is a fluorinated alkyl ethylene of the formula

CF.sub.3 (CF.sub.2).sub.3 CH.dbd.CH.sub.2,

wherein the units of acid comonomers are located in the interior of the copolymer.

IT 82606-24-4P
(prepn. of, as core-shell particles)

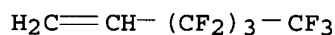
RN 82606-24-4 USPATFULL

CN 1-Hexene, 3,3,4,4,5,5,6,6,6-nonafluoro-, polymer with tetrafluoroethene
(9CI) (CA INDEX NAME)

CM 1

CRN 19430-93-4

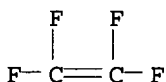
CMF C6 H3 F9



CM 2

CRN 116-14-3

CMF C2 F4



L21 ANSWER 67 OF 74 USPATFULL on STN

AN 86:71589 USPATFULL

TI Heat reflective **polymer** blends

IN Kerbow, Dewey L., Vienna, WV, United States

PA E. I. Du Pont de Nemours and Company, Wilmington, DE, United States
(U.S. corporation)

PI US 4629756 19861216

AI US 1985-794398 19851104 (6)

DT Utility

FS Granted

EXNAM Primary Examiner: Lilling, Herbert J.

CLMN Number of Claims: 7

ECL Exemplary Claim: 1

DRWN No Drawings

LN.CNT 195

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

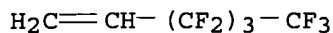
AB A radiant heat reflective composition comprising a blend of a tetrafluoroethylene copolymer and copper flake.

IT 68258-85-5, Ethylene-3,3,4,4,5,5,6,6,6-nonafluoro-1-hexene-tetrafluoroethylene copolymer

(copper flake-filled, heat-reflective)
RN 68258-85-5 USPATFULL
CN 1-Hexene, 3,3,4,4,5,5,6,6,6-nonafluoro-, polymer with ethene and tetrafluoroethene (9CI) (CA INDEX NAME)

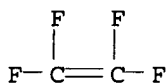
CM 1

CRN 19430-93-4
CMF C6 H3 F9



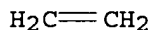
CM 2

CRN 116-14-3
CMF C2 F4



CM 3

CRN 74-85-1
CMF C2 H4

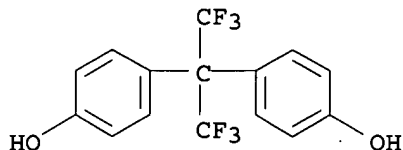


L21 ANSWER 68 OF 74 USPATFULL on STN
AN 86:66411 USPATFULL
TI Curing of thermoplastic tetrafluoroethylene/perfluoroalkyl ethylene copolymers
IN Fritschel, Scott J., Wilmington, DE, United States
Saunders, William D., Parkersburg, WV, United States
PA E. I. Du Pont de Nemours and Company, Wilmington, DE, United States
(U.S. corporation)
PI US 4624988 19861125
AI US 1985-789758 19851021 (6)
DT Utility
FS Granted
EXNAM Primary Examiner: Lieberman, Allan M.
CLMN Number of Claims: 2
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 312
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Crosslinking of copolymers of tetrafluoroethylene and perfluoroalkylethylene by heating in the presence of K.sub.2 AF is described.
IT 107001-47-8P
(prepn. of crosslinked, creep-resistant)
RN 107001-47-8 USPATFULL
CN Phenol, 4,4'-[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene]bis-, dipotassium salt, polymer with 3,3,4,4,5,5,6,6,6-nonafluoro-1-hexene and tetrafluoroethene (9CI) (CA INDEX NAME)

CM 1

CRN 25088-69-1

CMF C15 H10 F6 O2 . 2 K

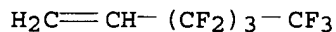


● 2 K

CM 2

CRN 19430-93-4

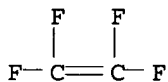
CMF C6 H3 F9



CM 3

CRN 116-14-3

CMF C2 F4



L21 ANSWER 69 OF 74 USPATFULL on STN

AN 86:15457 USPATFULL

TI Tetrafluoroethylene fine powder and preparation thereof

IN Malhotra, Satish C., Parkersburg, WV, United States

PA E. I. Du Pont de Nemours and Company, Wilmington, DE, United States
(U.S. corporation)

PI US 4576869 19860318

AI US 1984-621798 19840618 (6)

DT Utility

FS Granted

EXNAM Primary Examiner: Wong, Jr., Harry

CLMN Number of Claims: 3

ECL Exemplary Claim: 1

DRWN No Drawings

LN.CNT 536

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

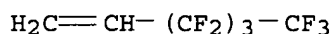
AB Tetrafluoroethylene fine powder resins are described which have surprisingly high extrusion pressures and molecular weights which make them useful in post-paste extruded stretching operations. The resins are made by using a permanganate polymerization initiator and controlling its rate of addition so that the reaction slows down at the end of the polymerization.

IT 82606-24-4P
(prepn. of powd., for paste extrusion and stretching)
RN 82606-24-4 USPATFULL
CN 1-Hexene, 3,3,4,4,5,5,6,6,6-nonafluoro-, polymer with tetrafluoroethene
(9CI) (CA INDEX NAME)

CM 1

CRN 19430-93-4

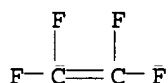
CMF C6 H3 F9



CM 2

CRN 116-14-3

CMF C2 F4



L21 ANSWER 70 OF 74 USPATFULL on STN
AN 85:63696 USPATFULL
TI Lamination of fluorocarbon films
IN Wolfe, Jr., William R., Wilmington, DE, United States
PA E. I. Du Pont de Nemours and Company, Wilmington, DE, United States
(U.S. corporation)

PI US 4549921 19851029

AI US 1983-546546 19831028 (6)

DT Utility

FS Granted

EXNAM Primary Examiner: Kimlin, Edward; Assistant Examiner: Cashion, Jr.,
Merrell C.

CLMN Number of Claims: 1

ECL Exemplary Claim: 1

DRWN No Drawings

LN.CNT 334

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Surface treated oriented fluorocarbon films can be laminated to
substrates using an adhesive composition of a selected copolymer of
vinylidene fluoride and hexafluoropropylene and a selected diisocyanate
curing agent in an organic solvent.

IT 68258-85-5P
(films, corona discharge-treated, laminates, adhesives for manuf. of)

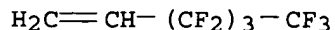
RN 68258-85-5 USPATFULL

CN 1-Hexene, 3,3,4,4,5,5,6,6,6-nonafluoro-, polymer with ethene and
tetrafluoroethene (9CI) (CA INDEX NAME)

CM 1

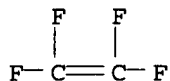
CRN 19430-93-4

CMF C6 H3 F9



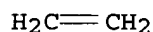
CM 2

CRN 116-14-3
CMF C2 F4



CM 3

CRN 74-85-1
CMF C2 H4



L21 ANSWER 71 OF 74 USPATFULL on STN

AN 85:41979 USPATFULL

TI Fluorinated copolymers with improved cure site

IN Finlay, Joseph B., Wilmington, DE, United States

PA E. I. Du Pont de Nemours and Company, Wilmington, DE, United States
(U.S. corporation)

PI US 4529784 19850716

AI US 1983-512688 19830711 (6)

DT Utility

FS Granted

EXNAM Primary Examiner: Henderson, Christopher A.

CLMN Number of Claims: 5

ECL Exemplary Claim: 1

DRWN No Drawings

LN.CNT 372

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Copolymers of tetrafluoroethylene and perfluoromethyl perfluorovinyl ether with a cure-site monomer of the formula R.sub.1 CH.dbd.CR.sub.2 R.sub.3 wherein R.sub.1 and R.sub.2 are independently selected from hydrogen and fluorine and R.sub.3 is independently selected from hydrogen, fluorine and alkyl or perfluoroalkyl.

IT 96387-51-8

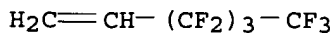
(rubber, heat-resistant)

RN 96387-51-8 USPATFULL

CN 1-Hexene, 3,3,4,4,5,5,6,6,6-nonafluoro-, polymer with tetrafluoroethene and trifluoro(trifluoromethoxy)ethene (9CI) (CA INDEX NAME)

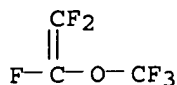
CM 1

CRN 19430-93-4
CMF C6 H3 F9



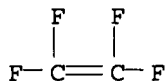
CM 2

CRN 1187-93-5
CMF C3 F6 O



CM 3

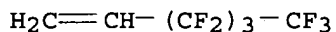
CRN 116-14-3
CMF C2 F4



L21 ANSWER 72 OF 74 USPATFULL on STN
AN 85:20999 USPATFULL
TI Fluorocarbon copolymer films
IN Levy, Stanley B., Wilmington, DE, United States
PA E. I. Du Pont de Nemours and Company, Wilmington, DE, United States
(U.S. corporation)
PI US 4510301 19850409
AI US 1983-485821 19830425 (6)
RLI Continuation-in-part of Ser. No. US 1982-383454, filed on 1 Jun 1982,
now abandoned
DT Utility
FS Granted
EXNAM Primary Examiner: Michl, Paul R.; Assistant Examiner: Walker, Alex H.
CLMN Number of Claims: 20
ECL Exemplary Claim: 1
DRWN 2 Drawing Figure(s); 1 Drawing Page(s)
LN.CNT 558
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB A film of a fluorocarbon copolymer of ethylene, and tetrafluoroethylene
or chlorotrifluoroethylene, which upon heat shrinking in the
longitudinal direction, does not expand in the transverse direction.
IT 68258-85-5
(films, with good high-temp. mech. properties)
RN 68258-85-5 USPATFULL
CN 1-Hexene, 3,3,4,4,5,5,6,6,6-nonafluoro-, polymer with ethene and
tetrafluoroethene (9CI) (CA INDEX NAME)

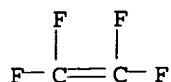
CM 1

CRN 19430-93-4
CMF C6 H3 F9



CM 2

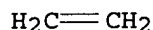
CRN 116-14-3
CMF C2 F4



CM 3

CRN 74-85-1

CMF C2 H4



L21 ANSWER 73 OF 74 USPATFULL on STN

AN 84:69165 USPATFULL

TI **Polymer** of TFE and f-alkyl ethylene

IN Fritschel, Scott J., Wilmington, DE, United States

PA E. I. Du Pont de Nemours and Company, Wilmington, DE, United States
(U.S. corporation)

PI US 4487902 19841211

AI US 1983-507082 19830623 (6)

RLI Continuation-in-part of Ser. No. US 1981-289493, filed on 6 Aug 1981,
now abandoned which is a continuation-in-part of Ser. No. US
1980-190562, filed on 25 Sep 1980, now abandoned

DT Utility

FS Granted

EXNAM Primary Examiner: Henderson, Christopher A.

CLMN Number of Claims: 2

ECL Exemplary Claim: 1

DRWN No Drawings

LN.CNT 425

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Copolymers of tetrafluoroethylene and fluorinated alkyl ethylenes are
obtained by this invention in which units of the copolymer derived from
the ethylene comonomer are substantially uniformly positioned along the
copolymer chain.

IT **82606-24-4P**

(manuf. of melt-processable)

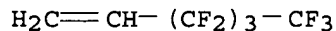
RN 82606-24-4 USPATFULL

CN 1-Hexene, 3,3,4,4,5,5,6,6,6-nonafluoro-, polymer with tetrafluoroethene
(9CI) (CA INDEX NAME)

CM 1

CRN 19430-93-4

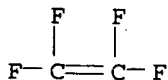
CMF C6 H3 F9

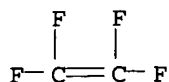


CM 2

CRN 116-14-3

CMF C2 F4

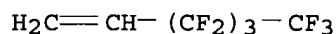




L21 ANSWER 74 OF 74 USPATFULL on STN
 AN 83:26451 USPATFULL
 TI Stabilized ethylene/tetrafluoroethylene copolymers
 IN Anderson, Jerrel C., Vienna, WV, United States
 PA E. I. Du Pont de Nemours & Co., Wilmington, DE, United States (U.S. corporation)
 PI US 4390655 19830628
 AI US 1982-374616 19820503 (6)
 RLI Continuation-in-part of Ser. No. US 1981-257107, filed on 24 Apr 1981, now abandoned
 DT Utility
 FS Granted
 EXNAM Primary Examiner: Hoke, V. P.
 CLMN Number of Claims: 7
 ECL Exemplary Claim: 1
 DRWN No Drawings
 LN.CNT 510
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.
 AB Presence of cuprous iodide or cuprous chloride provides protection to ethylene/tetrafluoroethylene polymers against thermal degradation.
 IT 68258-85-5
 (heat stabilizers for, cuprous iodide or chloride as)
 RN 68258-85-5 USPATFULL
 CN 1-Hexene, 3,3,4,4,5,5,6,6,6-nonafluoro-, polymer with ethene and tetrafluoroethene (9CI) (CA INDEX NAME)

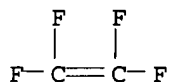
CM 1

CRN 19430-93-4
 CMF C6 H3 F9



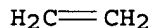
CM 2

CRN 116-14-3
 CMF C2 F4



CM 3

CRN 74-85-1
 CMF C2 H4



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L23 ANSWER 1 OF 2 USPATFULL on STN
 AN 2003:23566 USPATFULL
 TI Chemical amplification **photoresist** monomers, polymers
 therefrom and **photoresist** compositions containing the same
 IN Jung, Jae Chang, Kyoungki-do, KOREA, REPUBLIC OF
 Lee, Geun Su, Kyoungki-do, KOREA, REPUBLIC OF
 Shin, Ki Soo, Kyoungki-do, KOREA, REPUBLIC OF
 PI US 2003017404 A1 20030123
 AI US 2002-54095 A1 20020122 (10)
 PRAI KR 2001-38030 20010629
 DT Utility
 FS APPLICATION
 LREP MARSHALL, GERSTEIN & BORUN, 6300 SEARS TOWER, 233 SOUTH WACKER, CHICAGO,
 IL, 60606-6357
 CLMN Number of Claims: 28
 ECL Exemplary Claim: 1
 DRWN 1 Drawing Page(s)
 LN.CNT 447

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A chemical amplification **photoresist** monomer, a
photoresist polymer prepared thereof, and a
photoresist composition using the **polymer**. More
 specifically, a chemical amplification **photoresist**
polymer comprising a fluorine-containing monomer represented by
 Chemical Formula 1, and a composition comprising the **polymer**.

The **photoresist** composition has excellent etching resistance,
 heat resistance and adhesiveness, and is developable in aqueous
 tetramethylammonium hydroxide (TMAH) solution. As the composition has
 low light absorbance at 193 nm and 157 nm wavelength, it is very useful
 for forming ultramicro pattern in the process using a light source of
 far ultraviolet, especially of VUV (157 nm). ##STR1##

In the Formula, R.sub.1, R.sub.2, R.sub.3 and R.sub.4 is defined in the
 specification.

IT 488722-50-5P

(chem. amplification photoresist monomers, polymers for photoresist
 compns.)

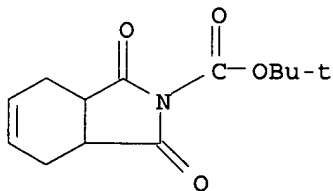
RN 488722-50-5 USPATFULL

CN 2H-Isoindole-2-carboxylic acid, 1,3,3a,4,7,7a-hexahydro-1,3-dioxo-,
 1,1-dimethylethyl ester, polymer with 3,3,4,4,5,5,6,6,6-nonafluoro-1-
 hexene and 3a,4,7,7a-tetrahydro-1H-isoindole-1,3(2H)-dione (9CI) (CA
 INDEX NAME)

CM 1

CRN 488722-49-2

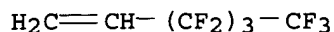
CMF C13 H17 N O4



CM 2

CRN 19430-93-4

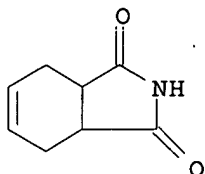
CMF C6 H3 F9



CM 3

CRN 85-40-5

CMF C8 H9 N O2



L23 ANSWER 2 OF 2 USPATFULL on STN

AN 2003:17285 USPATFULL

TI Maleimide-**photoresist** monomers containing halogen, polymers thereof and **photoresist** compositions comprising the same

IN Lee, Geun Su, Kyoungki-do, KOREA, REPUBLIC OF

Jung, Jae Chang, Kyoungki-do, JAPAN

Jung, Min Ho, Kyoungki-do, KOREA, REPUBLIC OF

Koh, Cha Won, Seoul, KOREA, REPUBLIC OF

Shin, Ki Soo, Seoul, KOREA, REPUBLIC OF

PI US 2003013037 A1 20030116

AI US 2002-80335 A1 20020221 (10)

PRAI KR 2001-19815 20010413

KR 2001-19816 20010413

DT Utility

FS APPLICATION

LREP MARSHALL, GERSTEIN & BORUN, 6300 SEARS TOWER, 233 SOUTH WACKER, CHICAGO, IL, 60606-6357

CLMN Number of Claims: 24

ECL Exemplary Claim: 1

DRWN 8 Drawing Page(s)

LN.CNT 640

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB **Photoresist** monomers, **photoresist** polymers prepared thereof, and **photoresist** compositions using the **polymer** are disclosed. More specifically, **photoresist** polymers comprising maleimide monomer represented by Formula 1, and a composition comprising the **polymer** thereof are disclosed. The **photoresist** composition has excellent etching resistance, heat resistance and adhesiveness, and can be developed in an aqueous tetramethylammonium hydroxide (TMAH) solution. As the composition has low light absorbance at 193 nm and 157 nm wavelength, and it is suitable for a process using ultraviolet light source such as VUV (157 nm).
##STR1##

wherein, X.sub.1, X.sub.2, R.sub.1, R.sub.2 and R.sub.3 are defined in the specification.

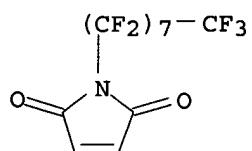
IT 485804-88-4P

(maleimide-photoresist monomers contg. halogen for photoresist compns.)

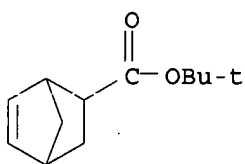
RN 485804-88-4 USPATFULL

CN Bicyclo[2.2.1]hept-5-ene-2-carboxylic acid, 1,1-dimethylethyl ester, polymer with 1-(heptadecafluorooctyl)-1H-pyrrole-2,5-dione and 3,3,4,4,5,5,6,6,6-nonafluoro-1-hexene (9CI) (CA INDEX NAME)

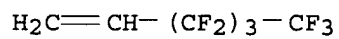
CRN 172413-96-6
CMF C12 H2 F17 N O2



CRN 154970-45-3
CMF C12 H18 O2



CRN 19430-93-4
CMF C6 H3 F9

 \Rightarrow

L49 ANSWER 1 OF 4 USPATFULL on STN

AN 96:60365 USPATFULL

TI Refrigeration lubricants prepared by polymerizing alkene having a perfluoroalkyl group on one end thereof

IN Nalewajek, David, West Seneca, NY, United States

Eibeck, Richard E., Orchard Park, NY, United States

Thomas, Raymond H. P., Amherst, NY, United States

PA AlliedSignal Inc., Morris County, NJ, United States (U.S. corporation)

PI US 5534176 19960709

AI US 1995-380470 19950130 (8)

RLI Continuation of Ser. No. US 1992-982269, filed on 25 Nov 1992, now abandoned which is a continuation of Ser. No. US 1991-738077, filed on 30 Jul 1991, now abandoned

DT Utility

FS Granted

EXNAM Primary Examiner: Medley, Margaret

LREP Gianneschi, Lois A.

CLMN Number of Claims: 2

ECL Exemplary Claim: 1

DRWN No Drawings

LN.CNT 1109

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention provides a composition for use in refrigeration and air-conditioning comprising: (a) at least one refrigerant selected from the group consisting of hydrofluorocarbon, hydrochlorofluorocarbon, fluorocarbon, and chlorofluorocarbon; and (b) a sufficient amount to provide lubrication of at least one lubricant prepared by polymerizing alkene having a perfluoroalkyl group on one end thereof. The lubricant has a molecular weight of about 300 to about 3,000 and a viscosity of about 5 to about 150 centistokes at 37.degree. C. The lubricant is miscible in combination with the refrigerant in the range between about -40.degree. C. and at least about +20.degree. C.

IT 26838-54-0P, 1-Butene, 3,3,4,4,4-pentafluoro-, homopolymer

179954-04-2P

(prepn. of refrigeration lubricants)

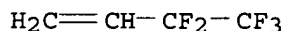
RN 26838-54-0 USPATFULL

CN 1-Butene, 3,3,4,4,4-pentafluoro-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 374-27-6

CMF C4 H3 F5



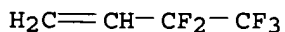
RN 179954-04-2 USPATFULL

CN 1-Butene, 3,3,4,4,4-pentafluoro-, polymer with 1-propene (9CI) (CA INDEX NAME)

CM 1

CRN 374-27-6

CMF C4 H3 F5

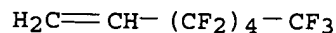


CM 2

L49 ANSWER 3 OF 4 USPATFULL on STN
AN 92:101070 USPATFULL
TI Fluorine-containing copolymer and curable composition containing the same
IN Mohri, Haruhiko, Settsu, Japan
Shimizu, Yoshiki, Settsu, Japan
Saito, Hideya, Settsu, Japan
Chida, Akira, Settsu, Japan
PA Daikin Industries, Ltd., Osaka, Japan (non-U.S. corporation)
PI US 5169915 19921208
AI US 1991-723073 19910628 (7)
PRAI JP 1990-172906 19900629
JP 1991-151562 19910624
DT Utility
FS Granted
EXNAM Primary Examiner: Schofer, Joseph L.; Assistant Examiner: Sarofim N.
LREP Armstrong & Kubovcik
CLMN Number of Claims: 4
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 1208
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB A fluorine-containing copolymer comprising 20 to 60% by mole of the fluoroolefin unit (1), 5 to 45% by mole of the .beta.-methyl substituted .alpha.-olefin unit (2), 1 to 45% by mole of the unit (3) derived from a monomer having a chemically curable functional group, 1 to 45% by mole of the unit (4) derived from a monomer having ester moieties in the side chains and 0 to 45% by mole of the unit (5) derived from a copolymerizable monomer other than the above monomers, if necessary, 0.1 to 15% by mole of the unit (6) derived from a monomer having carboxyl groups. The copolymer can provide a curable composition alone or with an acrylic polymer. The fluorine-containing copolymer is excellent in solvent-solubility, compatibility with curing agents, additives and other polymers, pigment dispersibility, curing reactivity, dispersibility to water, pot life, film forming ability, coating properties, and the like. The coating film prepared from the copolymer has a high weatherability and is excellent in film properties such as stain resistance, heat-yellowing resistance, dechlorination resistance, optical properties, adhesion to a substrate, mechanical properties, heat resistance, chemical resistance, solvent (gasoline) resistance, water resistance and good appearance of finished products.
IT 141314-10-5 141504-97-4 141682-23-7
(coatings, water-thinned, yellowing- and heat-resistant)
RN 141314-10-5 USPATFULL
CN Benzoic acid, ethenyl ester, polymer with ethenyl 2,2-dimethylpropanoate, 4-(ethenyloxy)-1-butanol, 3,3,4,4,5,5,5-heptafluoro-1-pentene, 2-methyl-1-propene, 3,3,4,4,5,5,6,6,6-nonafluoro-1-hexene, 3,3,4,4,4-pentafluoro-1-butene, tetrafluoroethene, Takenate D 140N, 3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluoro-1-octene and 3,3,4,4,5,5,6,6,7,7,7-undecafluoro-1-heptene (9CI) (CA INDEX NAME)

CM 1

CRN 84100-13-0
CMF C7 H3 F11



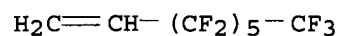
CM 2

CRN 70780-97-1
CMF Unspecified
CCI PMS, MAN

STRUCTURE DIAGRAM IS NOT AVAILABLE

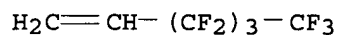
CM 3

CRN 25291-17-2
CMF C8 H3 F13



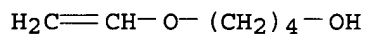
CM 4

CRN 19430-93-4
CMF C6 H3 F9



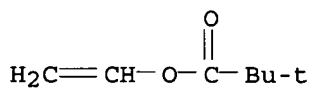
CM 5

CRN 17832-28-9
CMF C6 H12 O2



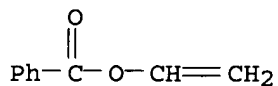
CM 6

CRN 3377-92-2
CMF C7 H12 O2

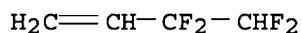


CM 7

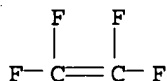
CRN 769-78-8
CMF C9 H8 O2



L49 ANSWER 4 OF 4 USPATFULL on STN
 AN 84:69165 USPATFULL
 TI Polymer of TFE and f-alkyl ethylene
 IN Fritschel, Scott J., Wilmington, DE, United States
 PA E. I. Du Pont de Nemours and Company, Wilmington, DE, United States
 (U.S. corporation)
 PI US 4487902 19841211
 AI US 1983-507082 19830623 (6)
 RLI Continuation-in-part of Ser. No. US 1981-289493, filed on 6 Aug 1981,
 now abandoned which is a continuation-in-part of Ser. No. US
 1980-190562, filed on 25 Sep 1980, now abandoned
 DT Utility
 FS Granted
 EXNAM Primary Examiner: Henderson, Christopher A.
 CLMN Number of Claims: 2
 ECL Exemplary Claim: 1
 DRWN No Drawings
 LN.CNT 425
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.
 AB Copolymers of tetrafluoroethylene and fluorinated alkyl ethylenes are
 obtained by this invention in which units of the copolymer derived from
 the ethylene comonomer are substantially uniformly positioned along the
 copolymer chain.
 IT 82606-23-3P
 (manuf. of melt-processable)
 RN 82606-23-3 USPATFULL
 CN 1-Butene, 3,3,4,4-tetrafluoro-, polymer with tetrafluoroethene (9CI) (CA
 INDEX NAME)
 CM 1
 CRN 40723-71-5
 CMF C4 H4 F4

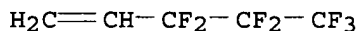


CM 2
 CRN 116-14-3
 CMF C2 F4

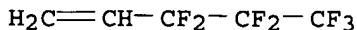


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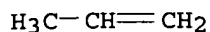
L50 ANSWER 1 OF 5 USPATFULL on STN
 AN 96:60365 USPATFULL
 TI Refrigeration lubricants prepared by polymerizing alkene having a perfluoroalkyl group on one end thereof
 IN Nalewajek, David, West Seneca, NY, United States
 Eibeck, Richard E., Orchard Park, NY, United States
 Thomas, Raymond H. P., Amherst, NY, United States
 PA AlliedSignal Inc., Morris County, NJ, United States (U.S. corporation)
 PI US 5534176 19960709
 AI US 1995-380470 19950130 (8)
 RLI Continuation of Ser. No. US 1992-982269, filed on 25 Nov 1992, now abandoned which is a continuation of Ser. No. US 1991-738077, filed on 30 Jul 1991, now abandoned
 DT Utility
 FS Granted
 EXNAM Primary Examiner: Medley, Margaret
 LREP Gianneschi, Lois A.
 CLMN Number of Claims: 2
 ECL Exemplary Claim: 1
 DRWN No Drawings
 LN.CNT 1109
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.
 AB The present invention provides a composition for use in refrigeration and air-conditioning comprising: (a) at least one refrigerant selected from the group consisting of hydrofluorocarbon, hydrochlorofluorocarbon, fluorocarbon, and chlorofluorocarbon; and (b) a sufficient amount to provide lubrication of at least one lubricant prepared by polymerizing alkene having a perfluoroalkyl group on one end thereof. The lubricant has a molecular weight of about 300 to about 3,000 and a viscosity of about 5 to about 150 centistokes at 37.degree. C. The lubricant is miscible in combination with the refrigerant in the range between about -40.degree. C. and at least about +20.degree. C.
 IT 26936-60-7P 179954-05-3P
 (prepn. of refrigeration lubricants)
 RN 26936-60-7 USPATFULL
 CN 1-Pentene, 3,3,4,4,5,5,5-heptafluoro-, homopolymer (9CI) (CA INDEX NAME)
 CM 1
 CRN 355-08-8
 CMF C5 H3 F7



RN 179954-05-3 USPATFULL
 CN 1-Pentene, 3,3,4,4,5,5,5-heptafluoro-, polymer with 1-propene (9CI) (CA INDEX NAME)
 CM 1
 CRN 355-08-8
 CMF C5 H3 F7



CM 2
 CRN 115-07-1



L50 ANSWER 2 OF 5 USPATFULL on STN

AN 93:44316 USPATFULL

TI Fluorine-containing copolymer and curable composition containing the same

IN Mohri, Haruhiko, Settsu, Japan
 Shimizu, Yoshiki, Settsu, Japan
 Saito, Hideya, Settsu, Japan
 Chida, Akira, Settsu, Japan

PA Daikin Industries, Ltd., Japan (non-U.S. corporation)

PI US 5216081 19930601

AI US 1992-953792 19920930 (7)

RLI Division of Ser. No. US 1991-723073, filed on 28 Jun 1991, now patented, Pat. No. US 5169915

PRAI JP 1990-172906 19900629

JP 1991-151562 19910624

DT Utility

FS Granted

EXNAM Primary Examiner: Schofer, Joseph L.; Assistant Examiner: Sarofim, N.

LREP Armstrong, Westerman, Hattori, McLeland & Naughton

CLMN Number of Claims: 9

ECL Exemplary Claim: 1

DRWN No Drawings

LN.CNT 1170

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A fluorine-containing copolymer comprising 20 to 60% by mole of the fluoroolefin unit (1), 5 to 45% by mole of the .beta.-methyl substituted .alpha.-olefin unit (2), 1 to 45% by mole of the unit (3) derived from a monomer having a chemically curable functional group, 1 to 45% by mole of the unit (4) derived from a monomer having ester moieties in the side chains and 0 to 45% by mole of the unit (5) derived from a copolymerizable monomer other than the above monomers, if necessary, 0.1 to 15% by mole of the unit (6) derived from a monomer having carboxyl groups. The copolymer can provide a curable composition alone or with an acrylic polymer. The fluorine-containing copolymer is excellent in solvent-solubility, compatibility with curing agents, additives and other polymers, pigment dispersibility, curing reactivity, dispersibility to water, pot life, film forming ability, coating properties, and the like. The coating film prepared from the copolymer has a high weatherability and is excellent in film properties such as stain resistance, heat-yellowing resistance, dechlorination resistance, optical properties, adhesion to a substrate, mechanical properties, heat resistance, chemical resistance, solvent (gasoline) resistance, water resistance and good appearance of finished products.

IT 141314-10-5 141504-97-4 141682-23-7

(coatings, water-thinned, yellowing- and heat-resistant)

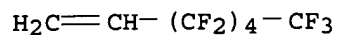
RN 141314-10-5 USPATFULL

CN Benzoic acid, ethenyl ester, polymer with ethenyl 2,2-dimethylpropanoate, 4-(ethenylloxy)-1-butanol, 3,3,4,4,5,5,5-heptafluoro-1-pentene, 2-methyl-1-propene, 3,3,4,4,5,5,6,6,6-nonafluoro-1-hexene, 3,3,4,4,4-pentafluoro-1-butene, tetrafluoroethene, Takenate D 140N, 3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluoro-1-octene and 3,3,4,4,5,5,6,6,7,7,7,7-undecafluoro-1-heptene (9CI) (CA INDEX NAME)

CM 1

CRN 84100-13-0

CMF C7 H3 F11



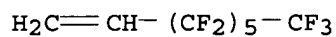
CM 2

CRN 70780-97-1
CMF Unspecified
CCI PMS, MAN

STRUCTURE DIAGRAM IS NOT AVAILABLE

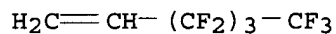
CM 3

CRN 25291-17-2
CMF C8 H3 F13



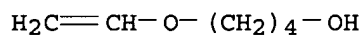
CM 4

CRN 19430-93-4
CMF C6 H3 F9



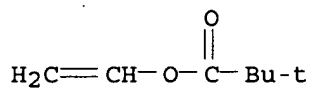
CM 5

CRN 17832-28-9
CMF C6 H12 O2



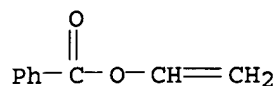
CM 6

CRN 3377-92-2
CMF C7 H12 O2



CM 7

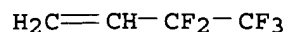
CRN 769-78-8
CMF C9 H8 O2



CM 8

CRN 374-27-6

CMF C4 H3 F5



CM 9

CRN 355-08-8

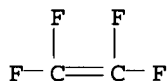
CMF C5 H3 F7



CM 10

CRN 116-14-3

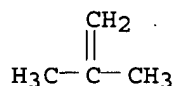
CMF C2 F4



CM 11

CRN 115-11-7

CMF C4 H8



RN 141504-97-4 USPATFULL

CN Benzoic acid, ethenyl ester, polymer with 2-butenic acid, Dianal SS 1084, ethenyl 2,2-dimethylpropanoate, 4-(ethenyloxy)-1-butanol, 3,3,4,4,5,5,5-heptafluoro-1-pentene, 2-methyl-1-propene, 3,3,4,4,5,5,6,6,6-nonafluoro-1-hexene, 3,3,4,4,4-pentafluoro-1-butene, tetrafluoroethene, 3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluoro-1-octene and 3,3,4,4,5,5,6,6,7,7,7,7,7-undecafluoro-1-heptene (9CI) (CA INDEX NAME)

CM 1

CRN 141443-62-1

CMF Unspecified

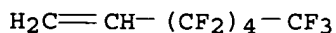
CCI PMS, MAN

STRUCTURE DIAGRAM IS NOT AVAILABLE

CM 2

CRN 84100-13-0

L50 ANSWER 3 OF 5 USPATFULL on STN
 AN 92:101070 USPATFULL
 TI Fluorine-containing copolymer and curable composition containing the same
 IN Mohri, Haruhiko, Settsu, Japan
 Shimizu, Yoshiki, Settsu, Japan
 Saito, Hideya, Settsu, Japan
 Chida, Akira, Settsu, Japan
 PA Daikin Industries, Ltd., Osaka, Japan (non-U.S. corporation)
 PI US 5169915 19921208
 AI US 1991-723073 19910628 (7)
 PRAI JP 1990-172906 19900629
 JP 1991-151562 19910624
 DT Utility
 FS Granted
 EXNAM Primary Examiner: Schofer, Joseph L.; Assistant Examiner: Sarofim N.
 LREP Armstrong & Kubovcik
 CLMN Number of Claims: 4
 ECL Exemplary Claim: 1
 DRWN No Drawings
 LN.CNT 1208
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.
 AB A fluorine-containing copolymer comprising 20 to 60% by mole of the fluoroolefin unit (1), 5 to 45% by mole of the .beta.-methyl substituted .alpha.-olefin unit (2), 1 to 45% by mole of the unit (3) derived from a monomer having a chemically curable functional group, 1 to 45% by mole of the unit (4) derived from a monomer having ester moieties in the side chains and 0 to 45% by mole of the unit (5) derived from a copolymerizable monomer other than the above monomers, if necessary, 0.1 to 15% by mole of the unit (6) derived from a monomer having carboxyl groups. The copolymer can provide a curable composition alone or with an acrylic polymer. The fluorine-containing copolymer is excellent in solvent-solubility, compatibility with curing agents, additives and other polymers, pigment dispersibility, curing reactivity, dispersibility to water, pot life, film forming ability, coating properties, and the like. The coating film prepared from the copolymer has a high weatherability and is excellent in film properties such as stain resistance, heat-yellowing resistance, dechlorination resistance, optical properties, adhesion to a substrate, mechanical properties, heat resistance, chemical resistance, solvent (gasoline) resistance, water resistance and good appearance of finished products.
 IT 141314-10-5 141504-97-4 141682-23-7
 (coatings, water-thinned, yellowing- and heat-resistant)
 RN 141314-10-5 USPATFULL
 CN Benzoic acid, ethenyl ester, polymer with ethenyl 2,2-dimethylpropanoate, 4-(ethenylloxy)-1-butanol, 3,3,4,4,5,5,5-heptafluoro-1-pentene, 2-methyl-1-propene, 3,3,4,4,5,5,6,6,6-nonafluoro-1-hexene, 3,3,4,4,4-pentafluoro-1-butene, tetrafluoroethene, Takenate D 140N, 3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluoro-1-octene and 3,3,4,4,5,5,6,6,7,7,7-undecafluoro-1-heptene (9CI) (CA INDEX NAME)
 CM 1
 CRN 84100-13-0
 CMF C7 H3 F11

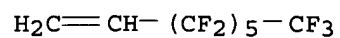


CRN 70780-97-1
CMF Unspecified
CCI PMS, MAN

STRUCTURE DIAGRAM IS NOT AVAILABLE

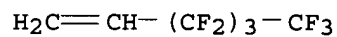
CM 3

CRN 25291-17-2
CMF C8 H3 F13



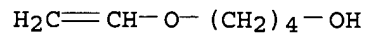
CM 4

CRN 19430-93-4
CMF C6 H3 F9



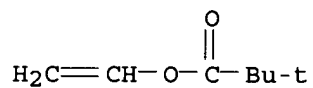
CM 5

CRN 17832-28-9
CMF C6 H12 O2



CM 6

CRN 3377-92-2
CMF C7 H12 O2



L50 ANSWER 4 OF 5 USPATFULL on STN

AN 84:69165 USPATFULL

TI Polymer of TFE and f-alkyl ethylene

IN Fritschel, Scott J., Wilmington, DE, United States

PA E. I. Du Pont de Nemours and Company, Wilmington, DE, United States
(U.S. corporation)

PI US 4487902 19841211

AI US 1983-507082 19830623 (6)

RLI Continuation-in-part of Ser. No. US 1981-289493, filed on 6 Aug 1981,
now abandoned which is a continuation-in-part of Ser. No. US
1980-190562, filed on 25 Sep 1980, now abandoned

DT Utility

FS Granted

EXNAM Primary Examiner: Henderson, Christopher A.

CLMN Number of Claims: 2

ECL Exemplary Claim: 1

DRWN No Drawings

LN.CNT 425

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Copolymers of tetrafluoroethylene and fluorinated alkyl ethylenes are
obtained by this invention in which units of the copolymer derived from
the ethylene comonomer are substantially uniformly positioned along the
copolymer chain.

IT 28428-96-8P

(manuf. of melt-processable)

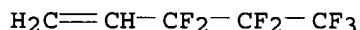
RN 28428-96-8 USPATFULL

CN 1-Pentene, 3,3,4,4,5,5,5-heptafluoro-, polymer with tetrafluoroethene
(9CI) (CA INDEX NAME)

CM 1

CRN 355-08-8

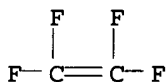
CMF C5 H3 F7



CM 2

CRN 116-14-3

CMF C2 F4



L50 ANSWER 5 OF 5 USPATFULL on STN

AN 74:57951 USPATFULL

TI PROCESS FOR CROSSLINKING FLUOROCARBON POLYMERS

IN Wall, deceased, Leo A., late of McLean, VA, United States BY Leola
Grace Wall, administratrix
Brown, Daniel W., Bethesda, MD, United States

Florin, Roland E., Takoma Park, MD, United States

PA The United States of America as represented by the Secretary of the
Army, Washington, DC, United States (U.S. government)

PI US 3853828 19741210

AI US 1973-418000 19731121 (5)

DT Utility

FS Granted
EXNAM Primary Examiner: Levin, Stanford M.
LREP Kelly, Edward J., Berl, Herbert, Erkkila, A. Victor
CLMN Number of Claims: 13
ECL Exemplary Claim: 1
DRWN 3 Drawing Figure(s); 3 Drawing Page(s)
LN.CNT 354

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A method for crosslinking specified fluorocarbon polymers, such as Viton
 stomers (copolymers of vinylidene fluoride and hexafluoropropene), by
 exposing the polymer to dilute fluorine gas, e.g., 5% fluorine in
 helium, preferably under ordinary temperature and pressure, using
 relatively small amounts of fluorine so that crosslinking of the polymer
 results with substantially no introduction of fluorine into the polymer
 molecule. The crosslinked polymers or vulcanizates thus obtained possess
 better thermal stability than vulcanizates produced from such
 fluorocarbon polymers by prior art crosslinking methods.

IT 28428-96-8

 (rubber, vulcanizing agent for, fluorine as)

RN 28428-96-8 USPATFULL

CN 1-Pentene, 3,3,4,4,5,5,5-heptafluoro-, polymer with tetrafluoroethene
 (9CI) (CA INDEX NAME)

CM 1

CRN 355-08-8

CMF C5 H3 F7

L50 ANSWER 5 OF 5 USPATFULL on STN

AN 74:57951 USPATFULL

TI PROCESS FOR CROSSLINKING FLUOROCARBON POLYMERS

IN Wall, deceased, Leo A., late of McLean, VA, United States BY Leola
Grace Wall, administratrix

Brown, Daniel W., Bethesda, MD, United States

Florin, Roland E., Takoma Park, MD, United States

PA The United States of America as represented by the Secretary of the
Army, Washington, DC, United States (U.S. government)

PI US 3853828 19741210

AI US 1973-418000 19731121 (5)

DT Utility

FS Granted

EXNAM Primary Examiner: Levin, Stanford M.

LREP Kelly, Edward J., Berl, Herbert, Erkkila, A. Victor

CLMN Number of Claims: 13

ECL Exemplary Claim: 1

DRWN 3 Drawing Figure(s); 3 Drawing Page(s)

LN.CNT 354

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A method for crosslinking specified fluorocarbon polymers, such as Viton
stomers (copolymers of vinylidene fluoride and hexafluoropropene), by
exposing the polymer to dilute fluorine gas, e.g., 5% fluorine in
helium, preferably under ordinary temperature and pressure, using
relatively small amounts of fluorine so that crosslinking of the polymer
results with substantially no introduction of fluorine into the polymer
molecule. The crosslinked polymers or vulcanizates thus obtained possess
better thermal stability than vulcanizates produced from such
fluorocarbon polymers by prior art crosslinking methods.

IT 28428-96-8

(rubber, vulcanizing agent for, fluorine as)

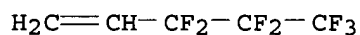
RN 28428-96-8 USPATFULL

CN 1-Pentene, 3,3,4,4,5,5,5-heptafluoro-, polymer with tetrafluoroethene
(9CI) (CA INDEX NAME)

CM 1

CRN 355-08-8

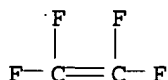
CMF C5 H3 F7



CM 2

CRN 116-14-3

CMF C2 F4



=>

L51 ANSWER 75 OF 81 USPATFULL on STN

AN 86:15457 USPATFULL

TI Tetrafluoroethylene fine powder and preparation thereof

IN Malhotra, Satish C., Parkersburg, WV, United States

PA E. I. Du Pont de Nemours and Company, Wilmington, DE, United States
(U.S. corporation)

PI US 4576869 19860318

AI US 1984-621798 19840618 (6)

DT Utility

FS Granted

EXNAM Primary Examiner: Wong, Jr., Harry

CLMN Number of Claims: 3

ECL Exemplary Claim: 1

DRWN No Drawings

LN.CNT 536

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Tetrafluoroethylene fine powder resins are described which have surprisingly high extrusion pressures and molecular weights which make them useful in post-paste extruded stretching operations. The resins are made by using a permanganate polymerization initiator and controlling its rate of addition so that the reaction slows down at the end of the polymerization.

IT 82606-24-4P

(prepn. of powd., for paste extrusion and stretching)

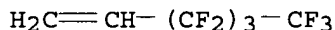
RN 82606-24-4 USPATFULL

CN 1-Hexene, 3,3,4,4,5,5,6,6,6-nonafluoro-, polymer with tetrafluoroethene
(9CI) (CA INDEX NAME)

CM 1

CRN 19430-93-4

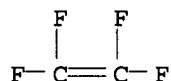
CMF C6 H3 F9



CM 2

CRN 116-14-3

CMF C2 F4



L51 ANSWER 76 OF 81 USPATFULL on STN

AN 85:63696 USPATFULL

TI Lamination of fluorocarbon films

IN Wolfe, Jr., William R., Wilmington, DE, United States

PA E. I. Du Pont de Nemours and Company, Wilmington, DE, United States
(U.S. corporation)

PI US 4549921 19851029

AI US 1983-546546 19831028 (6)

DT Utility

FS Granted

EXNAM Primary Examiner: Kimlin, Edward; Assistant Examiner: Cashion, Jr.,
Merrell C.

CLMN Number of Claims: 1

ECL Exemplary Claim: 1

DRWN No Drawings

LN.CNT 334

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Surface treated oriented fluorocarbon films can be laminated to substrates using an adhesive composition of a selected copolymer of vinylidene fluoride and hexafluoropropylene and a selected diisocyanate curing agent in an organic solvent.

IT 68258-85-5P

(films, corona discharge-treated, laminates, adhesives for manuf. of)

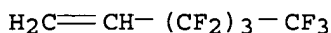
RN 68258-85-5 USPATFULL

CN 1-Hexene, 3,3,4,4,5,5,6,6,6-nonafluoro-, polymer with ethene and tetrafluoroethene (9CI) (CA INDEX NAME)

CM 1

CRN 19430-93-4

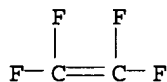
CMF C6 H3 F9



CM 2

CRN 116-14-3

CMF C2 F4



CM 3

CRN 74-85-1

CMF C2 H4



L51 ANSWER 77 OF 81 USPATFULL on STN

AN 85:41979 USPATFULL

TI Fluorinated copolymers with improved cure site

IN Finlay, Joseph B., Wilmington, DE, United States

PA E. I. Du Pont de Nemours and Company, Wilmington, DE, United States
(U.S. corporation)

PI US 4529784 19850716

L51 ANSWER 77 OF 81 USPATFULL on STN

AN 85:41979 USPATFULL

TI Fluorinated copolymers with improved cure site

IN Finlay, Joseph B., Wilmington, DE, United States

PA E. I. Du Pont de Nemours and Company, Wilmington, DE, United States
(U.S. corporation)

PI US 4529784 19850716

AI US 1983-512688 19830711 (6)

DT Utility

FS Granted

EXNAM Primary Examiner: Henderson, Christopher A.

CLMN Number of Claims: 5

ECL Exemplary Claim: 1

DRWN No Drawings

LN.CNT 372

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Copolymers of tetrafluoroethylene and perfluoromethyl perfluorovinyl ether with a cure-site monomer of the formula R.sub.1 CH.dbd.CR.sub.2 R.sub.3 wherein R.sub.1 and R.sub.2 are independently selected from hydrogen and fluorine and R.sub.3 is independently selected from hydrogen, fluorine and alkyl or perfluoroalkyl.

IT 96387-51-8

(rubber, heat-resistant)

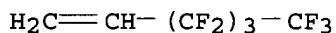
RN 96387-51-8 USPATEFULL

CN 1-Hexene, 3,3,4,4,5,5,6,6,6-nonafluoro-, polymer with tetrafluoroethene and trifluoro(trifluoromethoxy)ethene (9CI) (CA INDEX NAME)

CM 1

CRN 19430-93-4

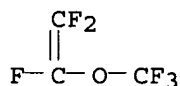
CMF C6 H3 F9



CM 2

CRN 1187-93-5

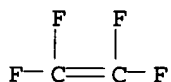
CMF C3 F6.0



CM 3

CRN 116-14-3

CMF C2 F4

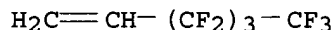


L51 ANSWER 78 OF 81 USPATFULL on STN

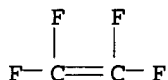
AN 85:20999 USPATFULL

TI Fluorocarbon copolymer films
IN Levy, Stanley B., Wilmington, DE, United States
PA E. I. Du Pont de Nemours and Company, Wilmington, DE, United States
(U.S. corporation)
PI US 4510301 19850409
AI US 1983-485821 19830425 (6)
RLI Continuation-in-part of Ser. No. US 1982-383454, filed on 1 Jun 1982,
now abandoned
DT Utility
FS Granted
EXNAM Primary Examiner: Michl, Paul R.; Assistant Examiner: Walker, Alex H.
CLMN Number of Claims: 20
ECL Exemplary Claim: 1
DRWN 2 Drawing Figure(s); 1 Drawing Page(s)
LN.CNT 558
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB A film of a fluorocarbon copolymer of ethylene, and tetrafluoroethylene
or chlorotrifluoroethylene, which upon heat shrinking in the
longitudinal direction, does not expand in the transverse direction.
IT 68258-85-5
(films, with good high-temp. mech. properties)
RN 68258-85-5 USPATFULL
CN 1-Hexene, 3,3,4,4,5,5,6,6,6-nonafluoro-, polymer with ethene and
tetrafluoroethene (9CI) (CA INDEX NAME)

L51 ANSWER 79 OF 81 USPATFULL on STN
 AN 84:69165 USPATFULL
 TI Polymer of TFE and f-alkyl ethylene
 IN Fritschel, Scott J., Wilmington, DE, United States
 PA E. I. Du Pont de Nemours and Company, Wilmington, DE, United States
 (U.S. corporation)
 PI US 4487902 19841211
 AI US 1983-507082 19830623 (6)
 RLI Continuation-in-part of Ser. No. US 1981-289493, filed on 6 Aug 1981,
 now abandoned which is a continuation-in-part of Ser. No. US
 1980-190562, filed on 25 Sep 1980, now abandoned
 DT Utility
 FS Granted
 EXNAM Primary Examiner: Henderson, Christopher A.
 CLMN Number of Claims: 2
 ECL Exemplary Claim: 1
 DRWN No Drawings
 LN.CNT 425
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.
 AB Copolymers of tetrafluoroethylene and fluorinated alkyl ethylenes are
 obtained by this invention in which units of the copolymer derived from
 the ethylene comonomer are substantially uniformly positioned along the
 copolymer chain.
 IT 82606-24-4P
 (manuf. of melt-processable)
 RN 82606-24-4 USPATFULL
 CN 1-Hexene, 3,3,4,4,5,5,6,6,6-nonafluoro-, polymer with tetrafluoroethene
 (9CI) (CA INDEX NAME)
 CM 1
 CRN 19430-93-4
 CMF C6 H3 F9



CM 2
 CRN 116-14-3
 CMF C2 F4

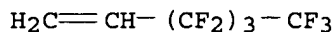


L51 ANSWER 80 OF 81 USPATFULL on STN
 AN 83:26451 USPATFULL
 TI Stabilized ethylene/tetrafluoroethylene copolymers
 IN Anderson, Jerrel C., Vienna, WV, United States
 PA E. I. Du Pont de Nemours & Co., Wilmington, DE, United States (U.S.
 corporation)
 PI US 4390655 19830628
 AI US 1982-374616 19820503 (6)
 RLI Continuation-in-part of Ser. No. US 1981-257107, filed on 24 Apr 1981,
 now abandoned
 DT Utility
 FS Granted

EXNAM Primary Examiner: Hoke, V. P.
CLMN Number of Claims: 7
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 510
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Presence of cuprous iodide or cuprous chloride provides protection to ethylene/tetrafluoroethylene polymers against thermal degradation.
IT 68258-85-5
(heat stabilizers for, cuprous iodide or chloride as)
RN 68258-85-5 USPATFULL
CN 1-Hexene, 3,3,4,4,5,5,6,6,6-nonafluoro-, polymer with ethene and tetrafluoroethene (9CI) (CA INDEX NAME)

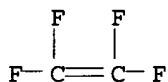
CM 1

CRN 19430-93-4
CMF C6 H3 F9



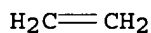
CM 2

CRN 116-14-3
CMF C2 F4



CM 3

CRN 74-85-1
CMF C2 H4



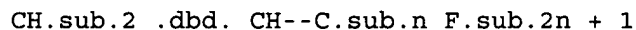
L51 ANSWER 81 OF 81 USPATFULL on STN
AN 78:61599 USPATFULL
TI Terpolymers of tetrafluoroethylene, ethylene and perfluoroalkyl vinyl monomer and process for producing the same
IN Ukihashi, Hiroshi, Tokyo, Japan
Yamabe, Masaaki, Machida, Japan
Miyake, Haruhisa, Yokohama, Japan
PA Asahi Glass Company, Ltd., Tokyo, Japan (non-U.S. corporation)
PI US 4123602 19781031
AI US 1978-867894 19780109 (5)
RLI Continuation of Ser. No. US 1976-689526, filed on 24 May 1976, now abandoned
DT Utility
FS Granted
EXNAM Primary Examiner: Wong, Jr., Harry
LREP Oblon, Fisher, Spivak, McClelland & Maier
CLMN Number of Claims: 34
ECL Exemplary Claim: 1

DRWN No Drawings

LN.CNT 547

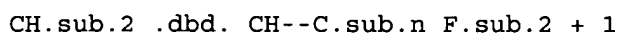
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Copolymers of tetrafluoroethylene and ethylene essentially consist of components of from 40 to 60 mole % of tetrafluoroethylene, 40 to 60 mole % of ethylene and 0.1 to 10 mole % of perfluoroalkyl vinyl component having the formula



wherein n is an integer of 2 to 10. Said copolymer has a volumetric flow rate of 10 to 500 mm.sup.3 /sec. defined in the specification.

The copolymers of tetrafluoroethylene and ethylene are produced by copolymerizing tetrafluoroethylene and ethylene with a molar ratio of C.sub.2 F.sub.4 /C.sub.2 H.sub.4 being kept essentially higher than 40/60 in the reactor in the presence of a small amount of a perfluoroalkyl vinyl monomer having the formula



wherein n is an integer of 2 to 10.

This is a continuation of application Ser. No. 689.526, filed May 24, 1976, now abandoned.

IT 68258-85-5P

(manuf. of heat-resistant)

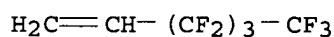
RN 68258-85-5 USPATFULL

CN 1-Hexene, 3,3,4,4,5,5,6,6,6-nonafluoro-, polymer with ethene and tetrafluoroethene (9CI) (CA INDEX NAME)

CM 1

CRN 19430-93-4

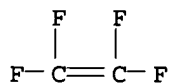
CMF C6 H3 F9



CM 2

CRN 116-14-3

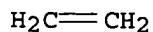
CMF C2 F4



CM 3

CRN 74-85-1

CMF C2 H4



=>

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L52 ANSWER 1 OF 3 USPATFULL on STN

AN 96:60365 USPATFULL

TI Refrigeration lubricants prepared by polymerizing alkene having a perfluoroalkyl group on one end thereof

IN Nalewajek, David, West Seneca, NY, United States

Eibeck, Richard E., Orchard Park, NY, United States

Thomas, Raymond H. P., Amherst, NY, United States

PA AlliedSignal Inc., Morris County, NJ, United States (U.S. corporation)

PI US 5534176 19960709

AI US 1995-380470 19950130 (8)

RLI Continuation of Ser. No. US 1992-982269, filed on 25 Nov 1992, now abandoned which is a continuation of Ser. No. US 1991-738077, filed on 30 Jul 1991, now abandoned

DT Utility

FS Granted

EXNAM Primary Examiner: Medley, Margaret

LREP Gianneschi, Lois A.

CLMN Number of Claims: 2

ECL Exemplary Claim: 1

DRWN No Drawings

LN.CNT 1109

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention provides a composition for use in refrigeration and air-conditioning comprising: (a) at least one refrigerant selected from the group consisting of hydrofluorocarbon, hydrochlorofluorocarbon, fluorocarbon, and chlorofluorocarbon; and (b) a sufficient amount to provide lubrication of at least one lubricant prepared by polymerizing alkene having a perfluoroalkyl group on one end thereof. The lubricant has a molecular weight of about 300 to about 3,000 and a viscosity of about 5 to about 150 centistokes at 37.degree. C. The lubricant is miscible in combination with the refrigerant in the range between about -40.degree. C. and at least about +20.degree. C.

IT 179954-02-0P 179954-07-5P

(prepn. of refrigeration lubricants)

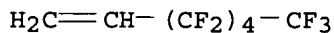
RN 179954-02-0 USPATFULL

CN 1-Heptene, 3,3,4,4,5,5,6,6,7,7,7-undecafluoro-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 84100-13-0

CMF C7 H3 F11



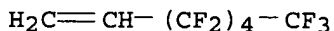
RN 179954-07-5 USPATFULL

CN 1-Heptene, 3,3,4,4,5,5,6,6,7,7,7-undecafluoro-, polymer with 1-propene (9CI) (CA INDEX NAME)

CM 1

CRN 84100-13-0

CMF C7 H3 F11



CM 2

CRN 115-07-1
CMF C3 H6



L52 ANSWER 2 OF 3 USPATFULL on STN
AN 93:44316 USPATFULL
TI Fluorine-containing copolymer and curable composition containing the same
IN Mohri, Haruhiko, Settsu, Japan
Shimizu, Yoshiki, Settsu, Japan
Saito, Hideya, Settsu, Japan
Chida, Akira, Settsu, Japan
PA Daikin Industries, Ltd., Japan (non-U.S. corporation)
PI US 5216081 19930601
AI US 1992-953792 19920930 (7)
RLI Division of Ser. No. US 1991-723073, filed on 28 Jun 1991, now patented, Pat. No. US 5169915
PRAI JP 1990-172906 19900629
JP 1991-151562 19910624
DT Utility
FS Granted
EXNAM Primary Examiner: Schofer, Joseph L.; Assistant Examiner: Sarofim, N.
LREP Armstrong, Westerman, Hattori, McLeland & Naughton
CLMN Number of Claims: 9
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 1170

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A fluorine-containing copolymer comprising 20 to 60% by mole of the fluoroolefin unit (1), 5 to 45% by mole of the .beta.-methyl substituted .alpha.-olefin unit (2), 1 to 45% by mole of the unit (3) derived from a monomer having a chemically curable functional group, 1 to 45% by mole of the unit (4) derived from a monomer having ester moieties in the side chains and 0 to 45% by mole of the unit (5) derived from a copolymerizable monomer other than the above monomers, if necessary, 0.1 to 15% by mole of the unit (6) derived from a monomer having carboxyl groups. The copolymer can provide a curable composition alone or with an acrylic polymer. The fluorine-containing copolymer is excellent in solvent-solubility, compatibility with curing agents, additives and other polymers, pigment dispersibility, curing reactivity, dispersibility to water, pot life, film forming ability, coating properties, and the like. The coating film prepared from the copolymer has a high weatherability and is excellent in film properties such as stain resistance, heat-yellowing resistance, dechlorination resistance, optical properties, adhesion to a substrate, mechanical properties, heat resistance, chemical resistance, solvent (gasoline) resistance, water resistance and good appearance of finished products.

IT 141314-10-5 141504-97-4 141682-23-7
(coatings, water-thinned, yellowing- and heat-resistant)

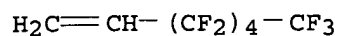
RN 141314-10-5 USPATFULL

CN Benzoic acid, ethenyl ester, polymer with ethenyl 2,2-dimethylpropanoate, 4-(ethenylloxy)-1-butanol, 3,3,4,4,5,5,5-heptafluoro-1-pentene, 2-methyl-1-propene, 3,3,4,4,5,5,6,6,6-nonafluoro-1-hexene, 3,3,4,4,4-pentafluoro-1-butene, tetrafluoroethene, Takenate D 140N, 3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluoro-1-octene and 3,3,4,4,5,5,6,6,7,7,7-undecafluoro-1-heptene (9CI) (CA INDEX NAME)

CM 1

CRN 84100-13-0

CMF C7 H3 F11



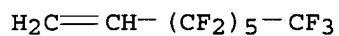
CM 2

CRN 70780-97-1
CMF Unspecified
CCI PMS, MAN

STRUCTURE DIAGRAM IS NOT AVAILABLE

CM 3

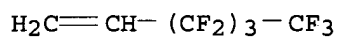
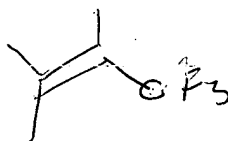
CRN 25291-17-2
CMF C8 H3 F13



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CM 4

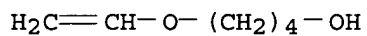
CRN 19430-93-4
CMF C6 H3 F9



C4

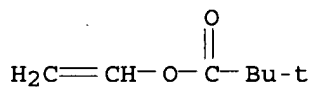
CM 5

CRN 17832-28-9
CMF C6 H12 O2



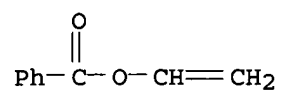
CM 6

CRN 3377-92-2
CMF C7 H12 O2



CM 7

CRN 769-78-8
CMF C9 H8 O2



CM 8

CRN 374-27-6

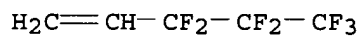
CMF C4 H3 F5



CM 9

CRN 355-08-8

CMF C5 H3 F7



L52 ANSWER 3 OF 3 USPATFULL on STN

AN 92:101070 USPATFULL

TI Fluorine-containing copolymer and curable composition containing the same

IN Mohri, Haruhiko, Settsu, Japan
Shimizu, Yoshiki, Settsu, Japan
Saito, Hideya, Settsu, Japan
Chida, Akira, Settsu, Japan

PA Daikin Industries, Ltd., Osaka, Japan (non-U.S. corporation)

PI US 5169915 19921208

AI US 1991-723073 19910628 (7)

PRAI JP 1990-172906 19900629

JP 1991-151562 19910624

DT Utility

FS Granted

EXNAM Primary Examiner: Schofer, Joseph L.; Assistant Examiner: Sarofim N.

LREP Armstrong & Kubovcik

CLMN Number of Claims: 4

ECL Exemplary Claim: 1

DRWN No Drawings

LN.CNT 1208

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A fluorine-containing copolymer comprising 20 to 60% by mole of the fluoroolefin unit (1), 5 to 45% by mole of the beta.-methyl substituted alpha.-olefin unit (2), 1 to 45% by mole of the unit (3) derived from a monomer having a chemically curable functional group, 1 to 45% by mole of the unit (4) derived from a monomer having ester moieties in the side chains and 0 to 45% by mole of the unit (5) derived from a copolymerizable monomer other than the above monomers, if necessary, 0.1 to 15% by mole of the unit (6) derived from a monomer having carboxyl groups. The copolymer can provide a curable composition alone or with an acrylic polymer. The fluorine-containing copolymer is excellent in solvent-solubility, compatibility with curing agents, additives and other polymers, pigment dispersibility, curing reactivity, dispersibility to water, pot life, film forming ability, coating properties, and the like. The coating film prepared from the copolymer has a high weatherability and is excellent in film properties such as stain resistance, heat-yellowing resistance, dechlorination resistance, optical properties, adhesion to a substrate, mechanical properties, heat resistance, chemical resistance, solvent (gasoline) resistance, water resistance and good appearance of finished products.

IT 141314-10-5 141504-97-4 141682-23-7

(coatings, water-thinned, yellowing- and heat-resistant)

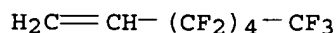
RN 141314-10-5 USPATFULL

CN Benzoic acid, ethenyl ester, polymer with ethenyl 2,2-dimethylpropanoate, 4-(ethenyloxy)-1-butanol, 3,3,4,4,5,5,5-heptafluoro-1-pentene, 2-methyl-1-propene, 3,3,4,4,5,5,6,6,6-nonafluoro-1-hexene, 3,3,4,4,4-pentafluoro-1-butene, tetrafluoroethene, Takenate D 140N, 3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluoro-1-octene and 3,3,4,4,5,5,6,6,7,7,7-undecafluoro-1-heptene (9CI) (CA INDEX NAME)

CM 1

CRN 84100-13-0

CMF C7 H3 F11



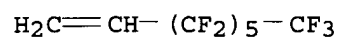
CM 2

CRN 70780-97-1
CMF Unspecified
CCI PMS, MAN

STRUCTURE DIAGRAM IS NOT AVAILABLE

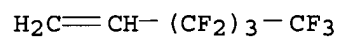
CM 3

CRN 25291-17-2
CMF C8 H3 F13



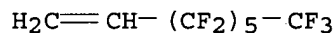
CM 4

CRN 19430-93-4
CMF C6 H3 F9



CM 5

L53 ANSWER 2 OF 11 USPATFULL on STN
 AN 96:60365 USPATFULL
 TI Refrigeration lubricants prepared by polymerizing alkene having a
 perfluoroalkyl group on one end thereof
 IN Nalewajek, David, West Seneca, NY, United States
 Eibeck, Richard E., Orchard Park, NY, United States
 Thomas, Raymond H. P., Amherst, NY, United States
 PA AlliedSignal Inc., Morris County, NJ, United States (U.S. corporation)
 PI US 5534176 19960709
 AI US 1995-380470 19950130 (8)
 RLI Continuation of Ser. No. US 1992-982269, filed on 25 Nov 1992, now
 abandoned which is a continuation of Ser. No. US 1991-738077, filed on
 30 Jul 1991, now abandoned
 DT Utility
 FS Granted
 EXNAM Primary Examiner: Medley, Margaret
 LREP Gianneschi, Lois A.
 CLMN Number of Claims: 2
 ECL Exemplary Claim: 1
 DRWN No Drawings
 LN.CNT 1109
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.
 AB The present invention provides a composition for use in refrigeration
 and air-conditioning comprising: (a) at least one refrigerant selected
 from the group consisting of hydrofluorocarbon, hydrochlorofluorocarbon,
 fluorocarbon, and chlorofluorocarbon; and (b) a sufficient amount to
 provide lubrication of at least one lubricant prepared by polymerizing
 alkene having a perfluoroalkyl group on one end thereof. The lubricant
 has a molecular weight of about 300 to about 3,000 and a viscosity of
 about 5 to about 150 centistokes at 37.degree. C. The lubricant is
 miscible in combination with the refrigerant in the range between about
 -40.degree. C. and at least about +20.degree. C.
 IT 152845-46-0P, (Perfluorohexyl)ethylene polymer
 179954-08-6P
 (prepn. of refrigeration lubricants)
 RN 152845-46-0 USPATFULL
 CN 1-Octene, 3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluoro-, homopolymer (9CI) (CA
 INDEX NAME)
 CM 1
 CRN 25291-17-2
 CMF C8 H3 F13



L53 ANSWER 3 OF 11 USPATFULL on STN
 AN 94:77476 USPATFULL
 TI Oligomers of fluorinated olefins
 IN von Werner, Konrad, Wald/Alz, Germany, Federal Republic of
 PA Hoechst Aktiengesellschaft, Burgkirchen, United States (non-U.S.
 corporation)
 PI US 5344580 19940906
 AI US 1992-983691 19921201 (7)
 PRAI DE 1991-4139765 19911203
 DT Utility
 FS Granted
 EXNAM Primary Examiner: McAvoy, Ellen M.
 CLMN Number of Claims: 16
 ECL Exemplary Claim: 1
 DRWN No Drawings
 LN.CNT 306
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.
 AB Oligomers of compounds of the formula

$$X--(CF_{\text{sub}2}).\text{sub.a}--O.\text{sub.b}--(CH_{\text{sub}2}).\text{sub.c}--CH=CH_{\text{sub}2}(1)$$

and co-oligomers of compounds of the formula (1) together with compounds of the formula

$$X--(CX_{\text{sub}2}).\text{sub.d}--O.\text{sub.b}--(CX_{\text{sub}2}).\text{sub.c}--CX=CX_{\text{sub}2}(2)$$

in which X is hydrogen or fluorine, a is a number from 2 to 16, b and c are, independently of one another, 0 or 1, and d is a number from 0 to 6, with a mean degree of oligomerization of 2 to 4, are obtained by heating a solution of the monomers in a hydrocarbon together with a free radical-forming catalyst to 135.degree. to 180.degree. C. The oligomers are lubricating agents and lubricants.

IT 152845-42-6P, 1-Octene-(perfluorohexyl)ethylene polymer
 152845-43-7P, Ethylene-(perfluorohexyl)ethylene polymer
 152845-44-8P, (Perfluorohexyl)ethylene-3-(1,1,2,2-
 tetrafluoroethoxy)-1-propene copolymer 152845-45-9P,
 Hexafluoropropylene-(perfluorohexyl)ethylene copolymer
 152845-46-0P, (Perfluorohexyl)ethylene polymer
 (oligomeric, manuf. of, by radical polymn. in hydrocarbons)
 RN 152845-42-6 USPATFULL
 CN 1-Octene, 3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluoro-, polymer with 1-octene
 (9CI) (CA INDEX NAME)

CM 1

CRN 25291-17-2

CMF C8 H3 F13

$$H_2C=CH-(CF_2)_5-CF_3$$

CM 2

CRN 111-66-0

CMF C8 H16

$$H_2C=CH-(CH_2)_5-Me$$

RN 152845-43-7 USPATFULL

CN 1-Octene, 3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluoro-, polymer with ethene
(9CI) (CA INDEX NAME)

CM 1

CRN 25291-17-2

CMF C8 H3 F13

$\text{H}_2\text{C}=\text{CH}-(\text{CF}_2)_5-\text{CF}_3$

CM 2

CRN 74-85-1

CMF C2 H4

$\text{H}_2\text{C}=\text{CH}_2$

RN 152845-44-8 USPATFULL

CN 1-Octene, 3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluoro-, polymer with
3-(1,1,2,2-tetrafluoroethoxy)-1-propene (9CI) (CA INDEX NAME)

CM 1

CRN 25291-17-2

CMF C8 H3 F13

$\text{H}_2\text{C}=\text{CH}-(\text{CF}_2)_5-\text{CF}_3$

CM 2

CRN 1428-33-7

CMF C5 H6 F4 O

$\text{H}_2\text{C}=\text{CH}-\text{CH}_2-\text{O}-\text{CF}_2-\text{CHF}_2$

RN 152845-45-9 USPATFULL

CN 1-Octene, 3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluoro-, polymer with
1,1,2,3,3,3-hexafluoro-1-propene (9CI) (CA INDEX NAME)

CM 1

CRN 25291-17-2

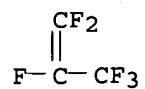
CMF C8 H3 F13

$\text{H}_2\text{C}=\text{CH}-(\text{CF}_2)_5-\text{CF}_3$

CM 2

CRN 116-15-4

CMF C3 F6



RN 152845-46-0 USPATFULL

CN 1-Octene, 3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluoro-, homopolymer (9CI) (CA
INDEX NAME)

CM 1

CRN 25291-17-2

L53 ANSWER 4 OF 11 USPATFULL on STN
 AN 93:44316 USPATFULL
 TI Fluorine-containing copolymer and curable composition containing the same
 IN Mohri, Haruhiko, Settsu, Japan
 Shimizu, Yoshiki, Settsu, Japan
 Saito, Hideya, Settsu, Japan
 Chida, Akira, Settsu, Japan
 PA Daikin Industries, Ltd., Japan (non-U.S. corporation)
 PI US 5216081 19930601
 AI US 1992-953792 19920930 (7)
 RLI Division of Ser. No. US 1991-723073, filed on 28 Jun 1991, now patented, Pat. No. US 5169915
 PRAI JP 1990-172906 19900629
 JP 1991-151562 19910624
 DT Utility
 FS Granted
 EXNAM Primary Examiner: Schofer, Joseph L.; Assistant Examiner: Sarofim, N.
 LREP Armstrong, Westerman, Hattori, McLeland & Naughton
 CLMN Number of Claims: 9
 ECL Exemplary Claim: 1
 DRWN No Drawings
 LN.CNT 1170

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A fluorine-containing copolymer comprising 20 to 60% by mole of the fluoroolefin unit (1), 5 to 45% by mole of the .beta.-methyl substituted .alpha.-olefin unit (2), 1 to 45% by mole of the unit (3) derived from a monomer having a chemically curable functional group, 1 to 45% by mole of the unit (4) derived from a monomer having ester moieties in the side chains and 0 to 45% by mole of the unit (5) derived from a copolymerizable monomer other than the above monomers, if necessary, 0.1 to 15% by mole of the unit (6) derived from a monomer having carboxyl groups. The copolymer can provide a curable composition alone or with an acrylic polymer. The fluorine-containing copolymer is excellent in solvent-solubility, compatibility with curing agents, additives and other polymers, pigment dispersibility, curing reactivity, dispersibility to water, pot life, film forming ability, coating properties, and the like. The coating film prepared from the copolymer has a high weatherability and is excellent in film properties such as stain resistance, heat-yellowing resistance, dechlorination resistance, optical properties, adhesion to a substrate, mechanical properties, heat resistance, chemical resistance, solvent (gasoline) resistance, water resistance and good appearance of finished products.

IT 141314-10-5 141504-97-4 141682-23-7

(coatings, water-thinned, yellowing- and heat-resistant)

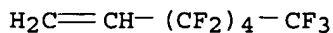
RN 141314-10-5 USPATFULL

CN Benzoic acid, ethenyl ester, polymer with ethenyl 2,2-dimethylpropanoate, 4-(ethenyloxy)-1-butanol, 3,3,4,4,5,5,5-heptafluoro-1-pentene, 2-methyl-1-propene, 3,3,4,4,5,5,6,6,6-nonafluoro-1-hexene, 3,3,4,4,4-pentafluoro-1-butene, tetrafluoroethene, Takenate D 140N, 3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluoro-1-octene and 3,3,4,4,5,5,6,6,7,7,7,7-undecafluoro-1-heptene (9CI) (CA INDEX NAME)

CM 1

CRN 84100-13-0

CMF C7 H3 F11



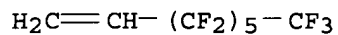
CM 2

CRN 70780-97-1
CMF Unspecified
CCI PMS, MAN

STRUCTURE DIAGRAM IS NOT AVAILABLE

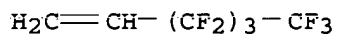
CM 3

CRN 25291-17-2
CMF C8 H3 F13



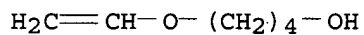
CM 4

CRN 19430-93-4
CMF C6 H3 F9



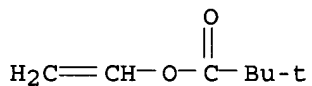
CM 5

CRN 17832-28-9
CMF C6 H12 O2



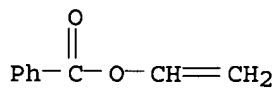
CM 6

CRN 3377-92-2
CMF C7 H12 O2



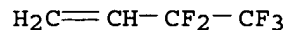
CM 7

CRN 769-78-8
CMF C9 H8 O2



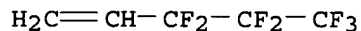
CM 8

CRN 374-27-6
CMF C4 H3 F5



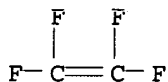
CM 9

CRN 355-08-8
CMF C5 H3 F7



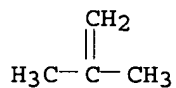
CM 10

CRN 116-14-3
CMF C2 F4



CM 11

CRN 115-11-7
CMF C4 H8



RN 141504-97-4 USPATFULL
CN Benzoic acid, ethenyl ester, polymer with 2-butenic acid, Dianal SS 1084,
ethenyl 2,2-dimethylpropanoate, 4-(ethenyloxy)-1-butanol,
3,3,4,4,5,5,5-heptafluoro-1-pentene, 2-methyl-1-propene,
3,3,4,4,5,5,6,6,6-nonafluoro-1-hexene, 3,3,4,4,4-pentafluoro-1-butene,
tetrafluoroethene, 3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluoro-1-octene and
3,3,4,4,5,5,6,6,7,7,7-undecafluoro-1-heptene (9CI) (CA INDEX NAME)

CM 1

CRN 141443-62-1
CMF Unspecified
CCI PMS, MAN

L53 ANSWER 5 OF 11 USPATFULL on STN

AN 92:101070 USPATFULL

TI Fluorine-containing copolymer and curable composition containing the same

IN Mohri, Haruhiko, Settsu, Japan
Shimizu, Yoshiki, Settsu, Japan
Saito, Hideya, Settsu, Japan
Chida, Akira, Settsu, Japan

PA Daikin Industries, Ltd., Osaka, Japan (non-U.S. corporation)

PI US 5169915 19921208

AI US 1991-723073 19910628 (7)

PRAI JP 1990-172906 19900629

JP 1991-151562 19910624

DT Utility

FS Granted

EXNAM Primary Examiner: Schofer, Joseph L.; Assistant Examiner: Sarofim N.

LREP Armstrong & Kubovcik

CLMN Number of Claims: 4

ECL Exemplary Claim: 1

DRWN No Drawings

LN.CNT 1208

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A fluorine-containing copolymer comprising 20 to 60% by mole of the fluoroolefin unit (1), 5 to 45% by mole of the beta.-methyl substituted .alpha.-olefin unit (2), 1 to 45% by mole of the unit (3) derived from a monomer having a chemically curable functional group, 1 to 45% by mole of the unit (4) derived from a monomer having ester moieties in the side chains and 0 to 45% by mole of the unit (5) derived from a copolymerizable monomer other than the above monomers, if necessary, 0.1 to 15% by mole of the unit (6) derived from a monomer having carboxyl groups. The copolymer can provide a curable composition alone or with an acrylic polymer. The fluorine-containing copolymer is excellent in solvent-solubility, compatibility with curing agents, additives and other polymers, pigment dispersibility, curing reactivity, dispersibility to water, pot life, film forming ability, coating properties, and the like. The coating film prepared from the copolymer has a high weatherability and is excellent in film properties such as stain resistance, heat-yellowing resistance, dechlorination resistance, optical properties, adhesion to a substrate, mechanical properties, heat resistance, chemical resistance, solvent (gasoline) resistance, water resistance and good appearance of finished products.

IT 141314-10-5 141504-97-4 141682-23-7

(coatings, water-thinned, yellowing- and heat-resistant)

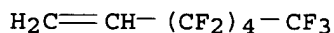
RN 141314-10-5 USPATFULL

CN Benzoic acid, ethenyl ester, polymer with ethenyl 2,2-dimethylpropanoate, 4-(ethenyloxy)-1-butanol, 3,3,4,4,5,5,5-heptafluoro-1-pentene, 2-methyl-1-propene, 3,3,4,4,5,5,6,6,6-nonafluoro-1-hexene, 3,3,4,4,4-pentafluoro-1-butene, tetrafluoroethene, Takenate D 140N, 3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluoro-1-octene and 3,3,4,4,5,5,6,6,7,7,7-undecafluoro-1-heptene (9CI) (CA INDEX NAME)

CM 1

CRN 84100-13-0

CMF C7 H3 F11



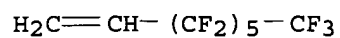
CM 2

CRN 70780-97-1
CMF Unspecified
CCI PMS, MAN

STRUCTURE DIAGRAM IS NOT AVAILABLE

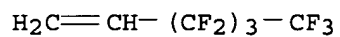
CM 3

CRN 25291-17-2
CMF C8 H3 F13



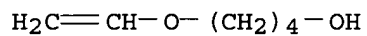
CM 4

CRN 19430-93-4
CMF C6 H3 F9



CM 5

CRN 17832-28-9
CMF C6 H12 O2



CM 6

CRN 3377-92-2
CMF C7 H12 O2